

Wildlife Express

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CORVIDS

American Crow CCBY cuaroK, Flickr

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If you spend time outside, you have probably met a bird that is part of the corvid family. This group includes ravens, crows, jays, magpies, and nutcrackers. Corvids are found all over the world with twenty species living in North America. Nine different kinds of corvid can be seen here in Idaho. These include the common raven, American crow, black-billed magpie, Clark's nutcracker and five species of jays. The jays you might see are Steller's jay, Woodhouse's scrub-jay, pinyon jay, Canada jay, and even an occasional eastern blue jay. Most corvids are very social. If you see one, several others are sure to be close-by.

Corvids are large birds. Ravens are the largest, weighing almost three pounds, twice as much as a crow. Jays are the smallest, but are still the size of a ruler. Jays are also the most colorful, often blue with some white and gray. All corvids have strong feet and beaks. Their beaks help to open tough foods, like nuts or clams. The lower jaw has a special structure that acts to brace the jaw against the bird's skull. This lets the bird use its jaw like a chisel to open hard items.

Corvids often store or cache (CASH) their food. Idaho's Clark's nutcracker caches and finds food it stored in thousands of locations. Nutcrackers sometimes forget some of their caches. The uneaten seeds feed other animals or grow into trees.

This group of birds is known for being very smart. Ravens and

magpies are able to recognize up to seven groups of different objects. This is like your understanding of the difference between seven groups of different candies. Ravens have problem-solving abilities. Scientists studied ravens that were given a perch with a piece of string hanging from it. A piece of food was tied to the other end of the string. Without ever seeing it before and with no practice, the ravens were able to figure out how to solve the problem. They used their beak and feet to reel in the string and get the food. Crows have learned to open hard objects like nuts and clams by dropping them on hard surfaces like roads. Some crows also set nuts on roads and wait for cars to crack the nuts open. Crow parents will break off pinecones and throw them down at an intruder climbing toward their nest. They can even identify individual people based on their experience with that person. Some jays and ravens have learned that the sound of a gunshot might mean a meal. Hunters field dressing their harvested animal are surprised to find they have an audience of birds waiting for dinner. This information just might change your mind about calling someone a bird-brain!



LET'S GET TOGETHER!

Many animals stick together in groups. Whether it's schools of fish, herds of deer or elk, packs of wolves, flocks of geese, or hives of bees, hanging with a crowd seems like the way to go. What is the big deal about being in a group? Scientists have several explanations for this behavior.

The first involves protection. More eyes mean it is easier to spot danger. Crows often have a sentinel that keeps an eye out for danger while the rest of the flock feeds. If danger approaches, the sentinel gives an alarm call and the crows fly away to safety. A group of animals makes it harder for predators to single out one animal. Crows and other birds often work together to drive away predators. Great horned owls are the crow's greatest enemy.

When crows find an owl, they often pester it until the owl leaves the area. This is called mobbing. One scientist found 136 crows mobbing one great horned owl. Talk about ganging up!

Food is another reason to stick together. With more animals looking for food, it is more likely that everyone will eat. Crows often roost at night with hundreds, thousands or sometimes millions of other crows. In the morning, crows can follow others that know of a good food source. This way, the entire group finds food.



MORE EYES MEAN IT IS EASIER TO SPOT DANGER.



Intelligence in Animals

If you ask a bird watcher to name the smartest bird, they will probably say the raven or crow. In this issue of *Wildlife Express*, you will read many examples of corvid intelligence. From caching food to recognizing faces to playing, corvids are definitely smart.

One of the reasons corvids are considered so intelligent is because of the size of their brain. It is large compared to its body. This is called the brain-to-body size ratio. A raven's brain-to-body size ratio is only a bit smaller than that of a human. Large brains help animals living in harsh environments. Being smart helps with survival. The animal can use its intelligence to find food and shelter under tough conditions. Some corvids also use tools to catch their food. The birds use hooked twigs or leaf stems to poke into an insect burrow and pull out the insect. Using tools is considered an important mark of intelligence. Very few animals besides humans use tools.

Scientists believe that one of the reasons corvids became so smart is because of what they eat. They are omnivores, eating just about anything they can get their beak on. This takes corvids to many different places. Over time, they have had to learn how to find and catch different kinds of food. That takes some smarts.

If corvids are intelligent, does that mean other species of birds are dumb? What about other animals? Humans tend to compare the intelligence of animals to our own. But is that really fair? Animals can do some amazing things that humans would not ever be able to do. Could you tell a friend where a flower patch is located by wiggling your butt and dancing in a circle? Nope, but a honeybee can.

Could you find your way home from school just by smell? No, but a salmon can find its way from the ocean to the stream where it was born by smelling the water. Think about bird migration. Tiny songbirds navigate across continents just by using the pattern of polarized light in the sky. Could you do that?

Some scientists will argue that many animal behaviors are just instinct. Other scientists argue that the behaviors indicate intelligence. This is a long-standing debate that might never be solved. Perhaps it is best to appreciate that birds like corvids, and other animals know exactly how to survive in their habitat. How and why they do it might be mysterious, but that does not make it any less amazing.





SCAVENGERS

One of the reasons that some corvid species are so common is because they are willing to eat anything. Ravens and crows often eat some pretty disgusting things like garbage and decomposing animals.

Crows and ravens scavenge when a large food source is available. A flock of crows feeding at a garbage dump is an example. Scavenging is also important, especially when food is scarce. Winter can be a hard time to find food. This is when you often see ravens eating dead animals. While they have strong beaks, they have a hard time breaking the skin of a dead deer or elk. Ravens leave this job to stronger scavengers such as golden eagles or coyotes. Once those scavengers leave, the birds can feed on the dead animal. Ravens also follow wolves as they hunt. If the wolves are successful, the ravens will also get a meal by feeding on the leftovers.

We may think scavenging is gross, but scavengers play an important role in nature. Can you imagine all the dead animals lying around if there were no scavengers? The smell alone would be enough to make us glad scavengers do what they do. Without them, important nutrients and minerals would not be recycled into other animals and plants. Scavenging might not be a role we want to play, but scavengers are important members of the cycle of life.



Photos top to bottom: Crow CCBY Larry Lamsa, Flickr, Magpie CCBY USFWS, Flickr, Crow CCBY Larry Lamsa, Flickr, Scavengers CCBY USFWS, Flickr

IDENTIFYING

CROWS AND RAVENS

Crows and ravens look a lot alike. Since these large, black birds live in Idaho, it is nice to know which bird is what species. Here are some clues:

CROW

Flies by flapping its wings; rarely soars

Flies like a hawk, soaring instead of flapping its wings

RAVEN

CROW

Slim, light-weight beak

Smaller, half the size of a raven

Fan-shaped tail--- seen when flying

Sound is a loud "caw, caw"

Often found in groups or large flocks

Large, heavy beak

Twice the size of a crow; similar in size to a great horned owl

RAVEN

Wedge-shaped tail--- seen when flying

Sound is a low croaking

Usually found alone or with one other raven unless scavenging on a large food source

CORVIDS

ARE

COOL!



As a family of birds, the corvids have some fascinating adaptations and behaviors. Let's take a closer look...

ACROBATIC FLYERS

Ravens are acrobats of the air. Bird watchers have seen ravens do barrel rolls and somersaults while flying. One raven was seen flying upside down for over a half-mile! No one knows what that raven was thinking, but it must have been an interesting sight. Ravens also play while flying. They sometimes carry and then drop something like a stick only to dive after it, catching it in mid-air. If you see a raven flying, watch it for a bit. You might see some pretty cool mid-air acrobatics.



FACIAL RECOGNITION

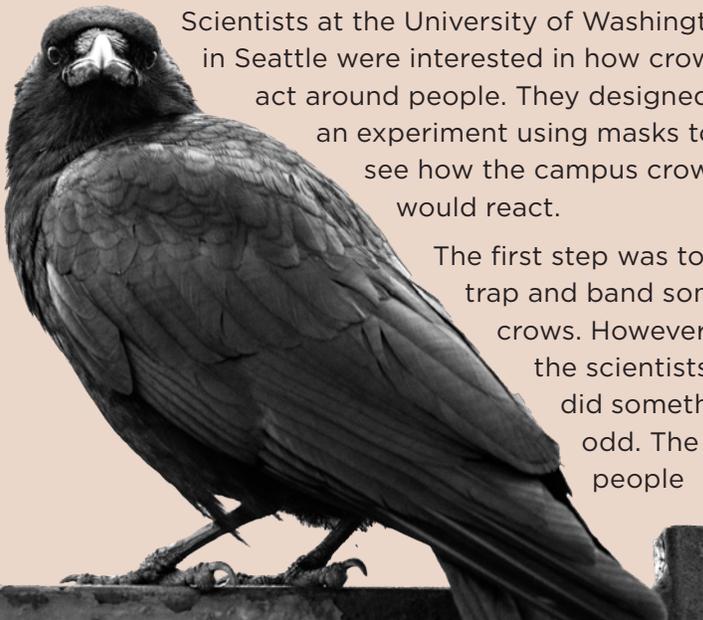
You or your parents might have a smart phone that uses facial recognition to unlock it. While this technology is fairly new to people, it's nothing new to crows. They are able to recognize people and remember them for years afterwards.

Scientists at the University of Washington in Seattle were interested in how crows act around people. They designed an experiment using masks to see how the campus crows would react.

The first step was to trap and band some crows. However, the scientists did something odd. The people

doing the trapping and banding wore caveman masks. Trapping and banding is somewhat stressful for the birds. The scientists wondered if the crows would remember the caveman faces as something dangerous. As it turned out, they remembered! Several days after the trapping and banding, a student wearing a caveman mask walked near the trapping site. The crows immediately began giving alarm calls and dive-bombing the student. A different student walked near the trapping site on another day, wearing a different mask. The crows ignored her completely.

Over time, crows that had not been trapped started scolding and dive-bombing people wearing the caveman mask. These crows had learned from the others that a person looking like the caveman was dangerous. In fact, the crows continued to raise the alarm when they saw the caveman mask years later! Facial recognition isn't just for smart phones.



MAGPIE FUNERALS



Both magpies and crows appear to hold funerals when another of their kind dies. When a dead magpie is found by another magpie, the discoverer immediately begins loudly calling. This attracts other magpies that begin calling, too. As many as 40 magpies have been observed standing

around a dead magpie, calling loudly. This lasts for 10-15 minutes before all the magpies fly silently away.

Crows have similar behaviors around a dead crow. Scientists are not sure why magpies and crows behave this way. They think that the birds might be trying to discover how the dead bird died. This could alert the birds to dangers in their habitat.

Could the birds be mourning their dead? That's a hard question to answer. Many other animals seem to grieve. Dogs that lose a companion sometimes behave in ways that make their owners think the dog is sad. Elephants gather around the body of a dead member of their herd, sometimes staying for days. An orca mother carried the body of her dead baby on her nose for 17 days. These examples seem to indicate that some animals do mourn for their dead. What do you think the magpies and crows are doing?

FOOD CACHING

Storing food is a common behavior among corvids. The birds most frequently store seeds or nuts. Using food caches can help the birds survive through the winter when other food is not available.

Clark's nutcrackers begin storing pine seeds in September. They fill a special pouch under their tongue with seeds then fly away to hide the seeds. Their caches might be as far away as 15 miles. This means that the bird needs to be able to remember exactly where the caches are located. Studies of nutcrackers show that the birds remember cache locations up to nine months later. They find their caches by remembering the location of trees, rocks, logs or other objects near the cache.

Nutcrackers often use locations on south-facing slopes. These get less snow, making it easier for the bird to find the cache during winter. While they are able to find a lot of their hidden food, nutcrackers do not remember it all. Scientists think that many whitebark pine forests grew from the uneaten seeds left by nutcrackers.

Canada jays have a unique way to store food. These beautiful smoky-gray birds have very sticky saliva. After gathering seeds, the jays use their saliva to form a ball of food. These food balls are stuck to tree branches, under bark, in pine needles or other locations. This stored food helps the jays survive cold winters where they live.



MIMICRY

Many of the jays are excellent mimics. These birds imitate a wide variety of sounds. Steller's jays have been heard imitating other birds, squirrels, cats, dogs, chickens and even some mechanical noises. Many bird watchers, thinking they were about to see a red-tailed hawk, are surprised to see an eastern blue jay, instead.

Birds imitate other birds for a number of reasons. A blue jay imitating a hawk could scare other birds away from a feeder. This leaves more food for the jay. It might help a bird defend its territory. If other birds hear a variety of songs, it might convince them to go somewhere else. Male birds that imitate other birds might also be showing off for a female. His ability to mimic could convince her that he would be the best mate. No matter what the reason, it is always interesting to hear one bird sounding like another.



THE SOCIAL SCENE

Corvids are definitely a social bunch. With a few exceptions, corvids like to spend time together. Many flocks of corvids are family groups made up of adults and their offspring. Crows often have nest helpers during the nesting season. These helpers are the previous year's youngsters. They stay with their parents through the year and help at the nest the next summer. Having extra adults to feed nestlings and guard the nest helps the new babies survive to become adults.

Staying together is also helpful in finding food. More eyes searching means that food is more likely to be found. In winter, some corvids, like Steller's jays and eastern blue jays, join other birds

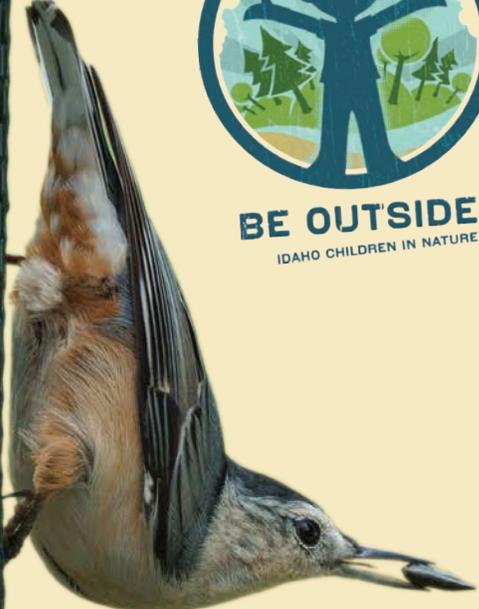
looking for food. Mixed flocks of jays, chickadees, nuthatches and downy woodpeckers move together looking for food. When one member of the flock finds food, the others benefit as well.

Corvids also enjoy playing together. Ravens often use sticks or stones while playing. Both ravens and crows enjoy playing in the snow. They roll in the snow just like you and your friends. They grab snowballs and fly off, trying to get another bird to chase them. Sliding in the snow seems to be another favorite activity. A hooded crow in Russia was even videoed using a plastic lid to snowboard down a snowy roof! Corvids know how to have fun.





Feeding Birds



With winter just around the corner, now is the perfect time to put up some bird feeders. Feeding wildlife is usually not a good thing to do, but birds are different. They do not become dependent on feeders. Instead, birds just include yards with feeders in their daily search for food.

If the feeders are empty, the birds move on to other food sources.

You can buy bird feeders or build your own. Building a bird feeder is a fun family project. Look for feeder plans at the library or on the internet. Make several kinds of feeders to feed different birds. Tube feeders attract birds like house finches, goldfinches, chickadees and nuthatches. Platform feeders will attract these birds as well as house sparrows, juncos, song sparrows and Steller's jays. Ground feeders are a favorite with mourning doves, juncos, white-crowned sparrows and California quail. Good foods for birds include black-oil sunflower seed, millet, nyger thistle, and safflower seed.

It is important to clean your feeders often. This helps prevent disease from spreading to birds. Last winter, a disease called salmonellosis spread across Idaho and the Pacific Northwest. Sick birds

were seen in many places. They fluffed up their feathers and did not try to fly. Many of them died. Keeping feeders clean and raking up spilled seed helps prevent disease. Soak your empty feeder in a mild bleach solution of one part bleach to ten parts water. Rinse the feeder well and dry it thoroughly in the sun.

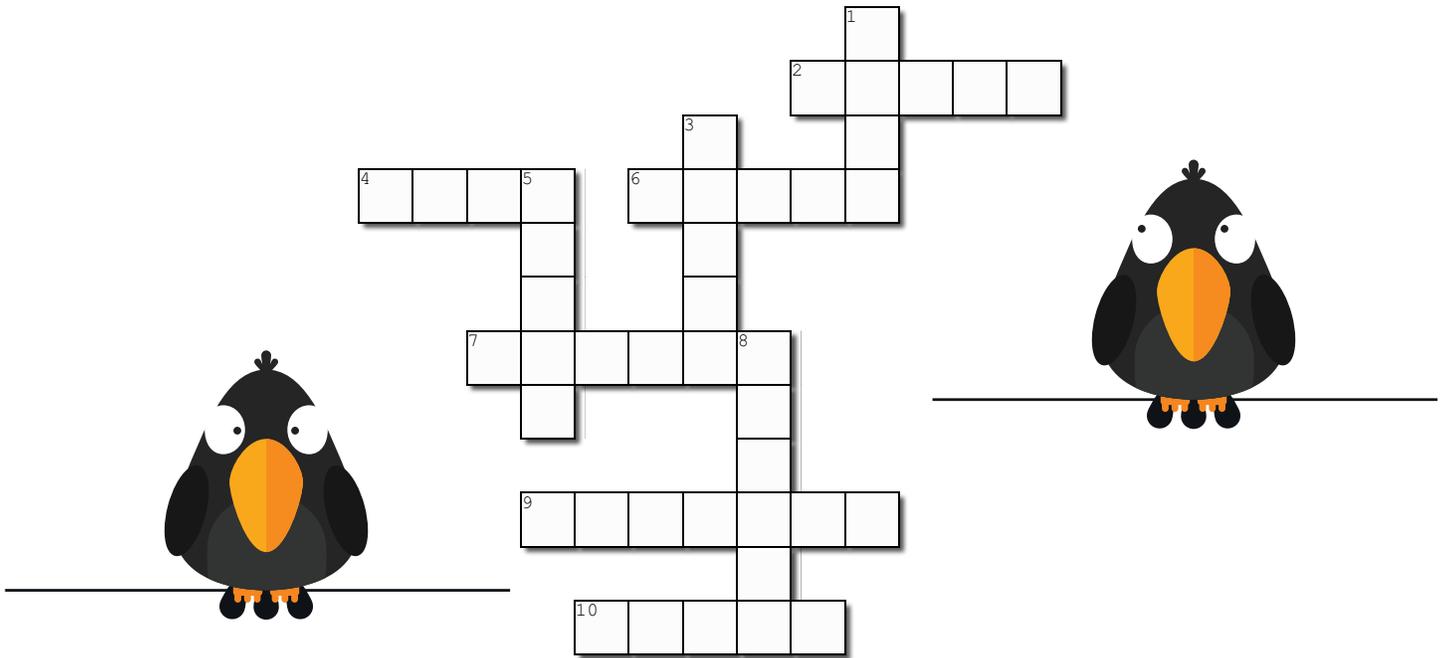
When you feed the birds, you might also attract bird-eating hawks. Both sharp-shinned and Cooper's hawks might try to make a meal from the birds at your feeders. Some people do not like this, but remember that the hawks need to eat, too. Life as a predatory bird is not easy. More often than not, the hawk will not be successful.

Its swoop through your yard will send the birds fleeing to shelter. When the coast is clear, they will return to the feeders.

Enjoy feeding the birds. You might be amazed at what you see in your own backyard.



Clever Corvids



Created using the Crossword Maker on TheTeachersCorner.net

jays social mimic cache magpies nine smart brains tools raven

Across

2. Some jays _____ the sounds of other animals.
4. These are the smallest and most colorful of the corvids.
6. Corvids often do this with their food.
7. Corvids have large _____ compared to the size of their bodies.
9. These corvids appear to hold funerals.
10. Some corvids use these to catch their food.

Down

1. This is the number of corvids found in Idaho.
3. This corvid has been seen flying upside down.
5. Corvids are _____ birds.
8. Most corvids are _____.



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WE WOULD LIKE TO HEAR FROM YOU!

If you have a letter, poem or question for Wildlife Express, it may be included in a future issue! Send it to:

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